

CLAIMS

Please cancel claims 1 -17 without prejudice to further prosecution. Please add new claims 18-24.

Claims 1-17 (cancelled)

18. (new) A method of maintaining synchronization among a plurality of network devices having local clocks that participate in a network comprising:

broadcasting a first packet from a first network device to other network devices that participate in the network wherein the first packet includes a global time reference derived from the local clock of the first network device; and

adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device;

wherein the global time reference includes a least significant part of the local clock of the first network device and does not include a most significant part of the local clock of the first network device.

19. (new) A method of maintaining synchronization among a plurality of network devices having local clocks that participate in a network comprising:

broadcasting a first packet from a first network device to other network devices that participate in the network wherein the first packet includes a global time reference derived from the local clock of the first network device; and

adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device;

wherein the global time reference includes a least significant part of the local clock of the first network device and does not include a most significant part of the local clock of the first network device, and wherein the most significant part of one of the network device local clocks is broadcast periodically and the most significant parts of all local clocks are conformed to the broadcast most significant part.

20. (new) A method of maintaining synchronization among a plurality of network devices having local clocks that participate in a network comprising:

broadcasting a first packet from a first network device to other network devices that participate in the network wherein the first packet includes a global time reference derived from the local clock of the first network device; and

adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device;

wherein adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device includes adjusting the clocks of the network devices by approximately one half the difference between the broadcast global time reference and the unadjusted value of the clock being adjusted.

21. (new) A method of maintaining synchronization among a plurality of network devices having local clocks that participate in a network comprising:

broadcasting a first packet from a first network device to other network devices that participate in the network wherein the first packet includes a global time reference derived from the local clock of the first network device; and

adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device;

wherein adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device includes adjusting the clocks of the network devices according to a nonlinear function of the difference between the unadjusted value of the clock being adjusted and the broadcast global time reference.

22. (new) A method of maintaining synchronization among a plurality of network devices having local clocks that participate in a network comprising:

broadcasting a first packet from a first network device to other network devices that participate in the network wherein the first packet includes a global time reference derived from the local clock of the first network device; and

adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device;

wherein adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device includes adjusting the clocks of the network devices according to a nonlinear function of the difference between the unadjusted value of the clock being adjusted and the broadcast global time reference, and wherein the nonlinear function of the difference between the unadjusted value of the clock being adjusted and the broadcast global time reference causes substantially no adjustment to the clock being adjusted when the difference between the unadjusted value of the clock being adjusted and the broadcast global time reference is greater than a maximum adjustable difference.

23. (new) A method of maintaining synchronization among a plurality of network devices having local clocks that participate in a network comprising:

broadcasting a first packet from a first network device to other network devices that participate in the network wherein the first packet includes a global time reference derived from the local clock of the first network device; and

adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device;

wherein the global time reference is derived from the local clock of the first network device immediately after a frame synchronization portion of a packet is transmitted.

24. (new) A method of maintaining synchronization among a plurality of network devices having local clocks that participate in a network comprising:

broadcasting a first packet from a first network device to other network devices that participate in the network wherein the first packet includes a global time reference derived from the local clock of the first network device; and

adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device;

wherein adjusting the clocks of the network devices that receive the first packet to be closer to the local clock of the first network device includes comparing the local clock of a receiving network device at the instant that frame synchronization is detected to the transmitted global time reference.